

1. A projectile dispenser having at least one expandable bellows, at least one spool for holding elongated projectiles in unidirectional parallel relation, and at least one collar surrounding said at least one spool for retaining said projectiles within said at least one spool; means for releasing said at least one spool in predetermined time relation from said dispenser, and means for releasing said elongated projectiles from said at least one spool in specific sequence following separation from said dispenser.

2. In an airborne projectile dispenser having a principal longitudinal axis, the improvement comprising: an expandable bellows having an axis of expansion along said principal axis, said bellows including self-contained gas-producing means, and timing means for operating said gas-producing means, at least one projectile carrying spool being in contact with an end surface of said bellows.

3. In an airborne projectile dispenser, the improvement comprising: at least one spool for supporting a plurality of projectiles in substantially parallel relation, a collar retaining said projectiles within said at least one spool, and means for opening said collar to release said projectiles, said last-mentioned means including the means for timing the period of release of said collar.

4. The improvement set forth in claim 3, including a cable surrounding said collar, and timed means for cutting said cable to release said collar from around said spool.

5. The improvement set forth in claim 3, including plural spools and collars arranged in coaxial alignment, said collars being of variable radial diameter relative to each other, so that when said spools are arranged within said dispenser, individual projectiles within spools are laterally offset with respect to corresponding projectiles in other spools to obtain a uniform projectile distribution pattern when meeting a target.

6. The improvement set forth in claim 4, in which said means for cutting said cable includes a capacitively powered circuit board.

7. In an elongated finned projectile having a rear end portion having guiding fins, the improvement comprising: said rear end being of reduced cross-sectional diameter whereby to accommodate parallel packing of said projectiles with other projectiles having fins located at varying distances from a rear end of said projectiles.

8. In a projectile dispenser having plural spools for retaining projectiles in parallel relation prior to axially-oriented release from said dispenser, the improvement comprising: expandable bellows means positioned between at least some of said spools for serially separating said spools, and timing means for controlling expansion of said bellows after release from said projectile dispenser, for spacing of the distance between said spool elements after discharge from said dispenser.



9. A projectile dispenser in accordance with claim 8, in which said bellows are operated by an ignitable gas-producing means, and means for timing the ignition of said gas-producing means.

10. A projectile dispenser in accordance with claim 9, in which said bellows are operated by an ignitable gas-producing means, and means for timing the ignition of said gas-producing means.

11. A projectile dispenser system comprising: an airborne projectile dispenser having a principal axis; a plurality of projectile-carrying spools carried by said airborne dispenser in axial alignment with said principal axis for serial discharge therefrom, said spools carrying plural projectiles in mutually parallel relation for radially-directed discharge from said spools; collar means for maintaining said projectiles within said spools prior to discharge; cable means for holding said collar means in fixed position; cable-severing means for releasing said collar means; timing means for initiating operation of said cable-severing means; expandable bellows means interconnected to said spools at one end thereof; means for selectively inflating said bellows means at timed intervals for serially-ejecting said spool means from said airborne dispenser; whereby said spools may be positioned in mutually-axially aligned locations prior to discharge of projectiles from said spools.

12. A projectile dispenser system in accordance with claim 11, said expandable bellows being expanded by electrically ignited gunpowder of predetermined quantity, thereby determining the degree of mutual spacing of said spool means.

13. A projectile dispenser in accordance with claim 11, in which at least some of said spools comprise means for interconnection with an adjacent spool, whereby at least a pair of spools are maintained in abutted relation after discharge from dispenser.

14. A dispenser system in accordance with claim 11, in which the discharge of projectiles from each spool is timed such that each row of projectiles has the same amount of time to expand before reaching a target.